

GLASGOW CATHEDRAL.

IN course of the 'restorations' for some time in progress at Glasgow Cathedral, an intention is said to have been expressed by Government to demolish the ancient north-west tower, which is regarded by the citizens not only as an important and characteristic feature of the structure, as it has existed for at least several centuries, and as it has been described by their classical poet and novelist, Scott, but as 'one of the ancient land-marks' of the city. A memorial, signed, it is said, by ten architects and ten other citizens, has accordingly been presented to the local authorities, deprecating such a sacrilege. "The tower," say the memorialists, "is considered by many persons to be the most ancient part of the building, and of a form and in a situation characteristic of the ancient Scottish Cathedral. Mr. Wade, a competent authority, in his volume on ancient and modern Glasgow, thus describes it:—'The north-western tower is of a much plainer character. In the upper part of the tower the antiquary may treat himself with some curious grotesque sculpture, coeval, no doubt, with the most ancient portion of the fabric;' and the same author states that a second and corresponding tower was evidently intended.

Should the tower be removed, the western front, if completed on the north as it is now on the south, will have a low and diminutive character. It is therefore imperative to have a commanding feature in that part of the elevation; and while the memorialists conceive that the western tower raised to its former height would fully answer this purpose, it would be less expensive than any other that could be resorted to be equally effective.

While the memorialists highly approve of the judicious renovation of Glasgow cathedral, they would suggest that farther alterations be avoided as much as possible, and the substitution of modern for the ancient architecture of the building, except where required by decay, be prevented."

The memorialists, therefore, proposed that a meeting of the citizens should be called, or the influence of the authorities with the Government exerted for its preservation.

DWELLINGS FOR THE POOR, FACTORIES AND BATHS.*

The Dwellings of the Poor.—Among the remedial measures of a private character that can only be reached by the inculcation of an enlightened policy, the improvement of the condition of the dwellings of the poor holds the first rank. I have already adverted to the conduct of the landlords of this description of buildings, and the consequences of their oppression, but I would add a few words to assure them that even a considerable expenditure upon their property would be economy compared with the narrow parsimony and neglect that is adopted towards their poor tenants. Just in proportion with the improved condition of the habitation is the occupant's ability to meet the demand for rent.

The repair and white-washing of these habitations, the provision of water, and efficient house drains, proper receptacles for dust and dry refuse, and the substitution of a decent water-closet to each for the foul cess-pool in common for many, would be the largest gain to the landlords themselves, not only in the increased ability to pay rents, from the improved condition of the inmates, but in the willing payment of higher rents for these benefits, infinitely increased in comparison to the cost of the improvements. I would caution all such men who thus neglect the duties imposed upon them, that the continuance of that neglect will surely fall heavily on themselves. A strong movement has set in among the better classes to beat such oppressors out of the field, by the substitution of good, wholesome dwellings for the poor.

Already have these been proved an excellent investment of capital, the buildings being eagerly sought, and the speculation paying from 5 to 10 and 10 per cent. profit. With such results, it is to be hoped that the laudable example will be followed in every town through-

out the kingdom, and that even the poor, with these examples before them, will be able by combination to do much to help themselves.

Improvement of Factories.—I would next appeal to manufacturers and employers of assembled numbers of the industrious classes, on behalf of themselves and of those employed.

I have had the pleasant duty already to remark on the absence of those injurious influences in the establishments of Ipswich, with which the labouring classes are so frequently and cruelly oppressed in the places provided for their labour; but so much remains in their hands for good, that I would not have them stop there. If property has its duties as well as its rights, this is especially so where the influence and example of masters are capable of exerting a constant effect on the conduct of those in their employ.

Factories and workshops should not only be convenient for work, cleanly, well ventilated, and provided with every means of decency and comfort, but manufacturers would do well, also, to surround their work-people, as far as practicable, with greater personal conveniences and objects of enjoyment, and moral advancement. The establishment of dining-rooms and soup-kitchens would be most beneficial and economical to the work-people, by keeping them from the public-house; and in large establishments, where women are employed, much good would result also from the provision of nurseries, where the infant children might be tended and cared for while the mothers were engaged at work, and the fearful infant mortality arrested that now results from the administration of drugs to keep them at rest during the hours of labour.

Baths and Washhouses.—The establishment of baths and washhouses, also, is another important power in the hands of manufacturers with which much good may be effected. I believe that the Act for the public provision of baths and washhouses will be productive of much benefit to the humbler classes, but I cannot help thinking that the tendency to provide large central and costly establishments will strip the provision of much of its usefulness. The great object should be to diffuse the advantage. The poor cannot afford, neither will they take the trouble, to travel long distances for a benefit of which they have yet to learn the full importance. The object must be rendered easy of accomplishment, and the habit fostered, or it will droop.

Small, unpretending, and economical establishments, in different localities, will be infinitely preferable to one extensive erection; and in most towns and districts, I believe that the provision might be advantageously made in combination with manufacturing establishments. The very arrangements of factories, generally, admit of the most economical addition of this provision, there being abundance of waste water for the purpose,—steam-power affording the requisite supply of heat, without increased cost. A substantial shed, fitted with the necessary appliances, would generally suffice for the great object sought, and enable such a small rate of charge to be levied as to insure their being made self-supporting by more general use.

The whole of such places of improvement, appertaining to a factory, should be surrounded with pleasurable objects, thrilling in themselves, but exercising an important influence—such as cheap works of art, good engravings, and moral sentiments conspicuously printed. The presence of these things during the cessation of labour must attract the attention and foster good and ennobling impressions.

Such additions to a factory should, with the superintendence of the employer, be under the guidance and regulation of the work-people themselves, who would thus be brought to feel an interest in, and responsibility for, their good order and maintenance. They should be encouraged, moreover, to frame and maintain rules for the preservation of peace and good conduct—especially condemnation of drunkenness and bad language—and should be encouraged to appropriate a small part of their wages for insurance against sickness and death.

The influence of the employer's exertions for the welfare of his work-people may extend most beneficially beyond the sphere of the

factory, by inculcating the importance of their living in good healthy dwellings, and impressing on their attention the vital importance of attending to sanitary arrangements.

The employer might do much also to encourage this feeling, by the provision of model cottages, and by assistance in small objects of improvement, as well as by a system of rewards and periodical inspection. This may appear a somewhat formidable list of objects for the attention of the manufacturer, but the improved physical and moral condition of his work-people would amply repay him any amount of labour and cost that he could possibly bestow upon them.

The partial operation of these provisions has been attended with the utmost success in many places, and the contrast to the usual state of things is so remarkable on visiting a factory, where such attention is paid, that it is almost like visiting another race of beings.

The extravagance of neglect is the most wasteful and cruel of all extravagance. The labour of one contented, willing, and well-conducted workman, is worth that of many of the poor weakly, depressed, and immoral creatures, that are brought to such low ebb by the cruel physical conditions to which they are bound.

ARCHITECTURAL EXAMINATION.*

SECOND CLASS.

1. Name the several conveniences for a farmhouse and farmery, necessary for a farm of 400 acres?
2. How should liquid manure tanks, and the drains communicating with them, be constructed?
3. How should a dairy be constructed, when detached from the house and offices?
4. Shew the method of constructing rain-water tanks, for preserving water in a fit state for use.
5. How should openings to stairs, and hearths, be trimmed?
6. Shew the way of setting out dog-legged stairs, and how the steps are secured to the strings.
7. How should half-paces and carriages for stairs be constructed?
8. Shew the manner of bracketing waggon-headed ceilings and cornices.
9. Describe the various ways of hanging inside shutters to windows?
10. Shew the method of constructing deal-cased frames with oak-sunk sills, and sashes double-hung.
11. How are panelled doors framed and put together? what precautions are necessary in laying in mouldings?
12. What is the usual way of proportioning rooms?
13. How should the size, and position of windows to dwelling-houses be regulated?
14. Shew how architectural ornament may be made to possess the semblance of utility.
15. Give examples of the proper finishings of external walls to houses.
16. How are brick and stone cornices measured?
17. Shew in what way the form of gutters to houses may be made to agree with the proper form for conduits.
18. Shew the arrangement proper for timbers in partitions to sustain floors.
19. Shew how solid, wrought, rebated, and beaded door-frames, should be put together.
20. What is the object of covering the outside of brick walls to houses with cement? State the precautions necessary in executing the work.
21. What number of 12-feet deals will it require to make 50 one-inch proper ledged doors, each 7 feet high by 3 feet 4 inches wide?
22. What number of duobush slates will it require to cover 50 squares of roof, when laid to 24-inch gauge?
23. How many 16-feet battens will it take to cover 150 squares of framing, with 7-inch weather boarding edges splined?
24. How should doors be placed and hung, when opening into rooms having windows and fire-places?
25. Describe the Venetian style of architec-

* From a report on the present sanitary condition of the town of Ipswich, and the means to be adopted for its improvement, by Mr. Henry Austin, C. E.

* The following is a continuation of the questions submitted to the students in the College of Engineers, at Putney—Mr. Hanger's class, at the last examination. See p. 365, ante.